THE QUALITY OF WESTERN-GROWN SPRING WHEAT.¹

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The crop year 1916 presented an unusual situation with regard to the marketing of the wheat grown in the Pacific Northwest. Ordinarily this wheat, grown principally in what is known as the Inland Empire, is marketed through Tacoma, Seattle, and Portland. Certain abnormal economic conditions, including high freight rates from the western ports and limited tonnage, have resulted in its transportation eastward by rail. Not since the rust-damaged spring wheat crop of 1904 has so large a quantity entered the markets of the Central States. Because of the short crop of rust-damaged wheat produced in the spring wheat area during the crop year of 1916, the attention of Central States millers is again being drawn to this western wheat, and an unusually large quantity is being utilized by them. Only a portion is being ground in these mills, however, much of it being consigned for export through eastern ports.

In addition to the varieties commonly grown in the Pacific Northwest, a considerable acreage of Marquis wheat was sown this past season. A part of this was shipped to the Minnesota markets during September, 1916. Some of the first consignments were so soft and starchy as to render difficult a classification based on the physical characteristics of the kernels. The yellowberry condition had resulted in the loss of the usual angularity of the edges of the cheek and crease of the kernel, which had a rotundity common to certain other varieties.

Tests were made of some of these first shipments of Marquis wheat, and the results showed them to be inferior to the average of the same variety of wheat grown in the Great Plains area. The writer therefore proceeded to those sections of Montana, Idaho, and Washington which were shipping grain of this variety, and collected a number of samples in order to ascertain the comparative quality of each. To afford a comparison with the varieties of wheat more commonly produced in the same areas, a number of samples of other kinds of wheat were collected at the same time. These were tested in the

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